

REMARKS

It is noted that claims 24 and 25 are withdrawn from consideration as directed-elected subject matter.

Claim 6-12 and 18-23 are objected to as being in improper multiple dependent form. The claims have been amended so as to eliminate any improper multiple dependency.

Claims 4 and 16, which are rejected under 35 U.S.C. §112, have been cancelled.

It is noted with appreciation that claims 5 and 17 have been indicated to contain allowable subject matter. However, the recasting of those claims in independent form is being deferred, pending consideration of this Amendment, which is believed to overcome the rejections of the base independent claims.

Claims 1-3 and 13-15 are rejected under 35 U.S.C. §103 as being unpatentable over patent no. 4,738,133 to Breckel et al. in view of patent no. 5,509,013 to Adachi et al. The rejection is respectfully traversed.

Breckel et al. teaches wireless transmission of analog data from plural sensors over a single communication link by time-divisional multiplexing, although it discloses that frequency-division multiplexing could also be used. There is no mention of transmission speeds or data carrying capacities.

Adachi et al. discloses a multiplexer control system for controlling the multiplexing of data from pre-existing channels with different transmission speeds. The system utilizes time-division multiplexing and operates so that data channels having higher transmission speeds are more frequently multiplexed than data channels having lower transmission speeds. There is no disclosure of whether the data sources are sensors or whether or not they have different data rate requirements.

In the Adachi et al. system, if, for example, a communication channel is broken down into blocks each having 64 time slots, high data rate input channels would be allocated proportionally more of those 64 slots in each block than would low data rate input channels. But there is no indication in Adachi et al. of identifiable sub-channels to which specific sources can be assigned. Thus, e.g., Adachi et al. does not disclose that each input channel will always be assigned to the same slot numbers in each block.

The examiner contends that it would have been obvious to combine the teachings of Breckel et al. and Adachi et al. On the contrary, it is submitted that this would not have been obvious to one of ordinary skill in the art. Breckel et al. deals with data from sensors which apparently have the same data rates. Applicants' claims require a division of a communication channel "asymmetrically whereby the data carrying capacities of said sub-channels are unequal" and "allocating data from said local data sensors to respective of ones or groups of said sub-channels in accordance with the data carrying capacities of said sub-channels." Even assuming that Adachi et al. teaches asynchronous subdivision of a communication channel into sub-channels having different data-carrying capacities, there would be no point in utilizing such an arrangement in combination with the Breckel et al. system, wherein data is transmitted from sensors having the same data rates.

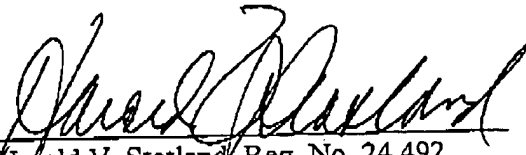
Thus, it is believed that the claims patentably distinguish from the cited references.

Claims 2 and 14 require that the channel be divided on a frequency basis. There is no suggestion in Adachi et al. as to how its system could be utilized in a frequency division multiplexing arrangement. This affords an additional reason for the allowance of claims 2 and 14.

For all of the foregoing reasons it is believed that, as amended, each of the claims 1-3, 5-15 and 17-23 is patentable over the cited art, and, accordingly, allowance of those claims is respectfully asked.

Respectfully submitted,

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